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THE PENNSYLVANIA MUSEUM
AND
SCHOOL OF INDUSTRIAL ART
PHILADELPHIA

NUMISMATICS

NOTES

UPON THE

COLLECTION OF COINS AND MEDALS

DEPOSITED BY THE NUMISMATIC AND ANTIQUARIAN SOCIETY
OF PHILADELPHIA

BY HENRY PHILLIPS, JR.

AND UPON THE

Collection of Chinese Coins

BELONGING TO THE MUSEUM

BY STEWART CULIN

MEMORIAL HALL
FAIRMOUNT PARK
1885

PRICE, 10 CENTS

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NOTES UPON THE COLLECTION OF COINS AND MEDALS NOW UPON EXHIBITION AT THE PENNSYLVANIA MUSEUM AND SCHOOL OF INDUSTRIAL ART, MEMORIAL HALL, FAIRMOUNT PARK, PHILADELPHIA.

BY HENRY PHILLIPS, JR.

"Quem non moveat clarissimis monumentis testata consignataque vetustas?"
SPANHEIM.

The object of this display is to present Art as typified upon coins and medals from the earliest known period until the present time, so as to show the student the nature and character of the development of the æsthetic culture as exhibited by the aid of Numismatic science.

The change and advance presented by the inspection of coins and medals is a vast chain of ever closely joining links. From the very beginning of coinage, from the rudest of all ancient coins, the Persian daric or the tortoise of Ægina, to the majestic medallions of Syracuse, step by step every inch of the onward march of Art may readily be traced. The earliest of all known coins exhibit on the reverse only a shapeless punch mark, are the work of unskilled hands, are defective in type, in shape, in inscription, while the latest (or most modern) present complicated and intricate devices of all kinds and natures.

The present exhibition is composed of the collections of coins and medals belonging respectively to the Library Company of Philadelphia, the American Philosophical Society, and the Numismatic and Antiquarian Society of Philadelphia, under the care of which latter Society the collections have been deposited and arranged by a committee. A few private individuals have also contributed to the exhibition.

The display may be divided into three great heads, viz.: Coins, medals, and tokens (embracing jettons), to the main features of which I shall briefly advert, beginning for convenience sake with the second general subdivision.

CASES 23, 24.

The first series to be noticed is one consisting of thirty-one bronze medals of large sizes commemorating victories and notable events

in the history of the Empire of Russia from the time of Peter the Great to that of Catharine II. They are all of very high relief, and bear, for the most part, on their obverse the nude bust of that Empress, exhibiting her as a young woman, and as time passes on showing the alterations it has caused in her appearance.

There are silver medals given by Kings George I and II to the North American Indians, usually worn by the sachems as gorgets and interred with them at their decease.

The Indian medal of George I bears on the reverse an Indian, armed with a bow and arrow, taking aim at a stag.

The one issued under King George II is stated, in Vaux's life of Anthony Benezet, to have been cut in America, and is especially worthy of notice on that account, as having been the first medal ever made in this country. It is cut in very bold style, although the reverse is decidedly stiff of execution. The obverse bears the bust of King George II with his titles; the reverse a Quaker seated on the ground, who is receiving from (or handing to) an Indian the calumet of peace; around is the inscription, "Let us look to the Most High who blessed our fathers with peace."

Another silver gorget bears on the obverse an antique view of the city of Montreal; on the reverse is engraved the word "Mohigrans," and in script the name *Tungran*, being probably the appellation of the chieftain to which it had been presented.

A series of well-executed medals represents scenes in the lives of Louis XV, Louis XVI, Marie Antoinette, Lord Howe, Lord Cornwallis, Suwarrow, and others. There are fine medals of Rousseau, Lafayette, Liebnitz, Gauss, Thiersch, R. M. Patterson, David Rittenhouse, Berzelius, Charles XII of Sweden, Louis XVIII, Napoleon (commemorating the introduction of vaccination), Napoleon and Josephine (accolated), Marquis of Granby, Earl Kildare, one commemorating the millennial anniversary of the Kingdoms of Sweden and Norway, one of King Augustus of Poland, and other celebrated persons and events.

A series represents the "Medallic History of the American Revolution," on which appear Franklin and Washington with various symbolical reverses. There are medals of Pitt, of Penn, and quite a number of Washington, embracing the "Manly," the "Sansom," the "Eccleston," the "C. C. A. U. S.," "He is in glory," etc., etc., etc.; medals commemorative of the peace of 1814 and that of 1783; one given to Defleury upon the capture of Stony Point; a fine gilt medallion of the Earl of Essex, cut by the celebrated Simon in the days of the Commonwealth.

There is an interesting series of medalets in copper ranging in date from 1584 to 1620, representing various occurrences in the wars between King Philip II of Spain and the United Provinces, among which the following are of the most interest:

No. 34141 bears on its obverse upon a sea violently in commotion, lashed by storms, a ship whose topmasts have been broken off, above which is the date 1565. Inscription, INCERTUM. QUO. FATA. FERENT.

On the reverse a female figure, holding her right hand toward heaven, and in her left an anchor; from above rays are streaming down upon her head. Inscription, SPES . ALMA . SUPERSIT.

This jetton was struck in reference to the dissensions and lack of unity then prevalent in the Netherlands and the unfavorable outlook of the times.

No. 34179 has on the obverse the inscription, LAPIS . RELECTUS—CAPUT . ANGULI. Within a circle of very fine lines a three-cornered stone, showing its broadest part downward; below is a crowned lion with a shield near the inscription on the border. Reverse, DNS . FECIT . HOC . ET . FU (it) MI . (rabile) IN OC . (ulis) H . (ominum.) 1574. The sacred name of Jehovah in Hebrew letters within a circle, beneath which are clouds, whence beams and rays are spreading downward.

No. 34214. Obverse, AFFLICTOS . DOCET . VIAM . SUAM. 1577, and a five-leaved rose. In the lower foreground is the figure of a man resting upon the earth (the prophet Elijah), receiving in his right hand a piece of bread which a hand is reaching to him from out of the clouds. In the background of the landscape appears a city. In the clouds the name of Jehovah in Hebrew letters. Reverse, LIBRAT . A . CONDEMNANTIBUS . ANIMAM . EJUS. Daniel in the lion's den by the side of two lions. Above the name of Jehovah in a cloud (as on the obverse), and a hand stretched out. This piece refers to the gloomy state of affairs, and is intended to recall to the mind of the distressed or doubting Hollanders the two signal examples of the Divine beneficence that are commemorated upon this coin.

No. 34379. Obverse, ZELUS . DOMINI . EXERCITUUM . FECIT . HOC. Upon the upper portion of the field the name of Jehovah in Hebrew letters surrounded by a cloud, from which a naked arm holding a sceptre is projecting; below is a landscape in which several cities and towns are visible. Reverse, STENOVICO . | OTMARSIA . | COVORDIA . | CAPTIS . | HOSTE . | REPULSO . | SEN . | FÆD . PRO . | F . | F . | M'D'XCII. This piece refers to the capture of the cities named.

No. 34404. Obverse, CASTRACON | SPEXIT INSE | ADVERSARIA | SELVOLDA CUM | BISLECHIO AD | NOV' MDXCV. Reverse, a battlemented tower, at whose base a battering-ram, worked by eight warriors, is being operated, and has effected a breach. This and the next jetton commemorate the capture of the towns of Selvold and Bislich.

No. 34405. Obverse, QUÆRERE. Within a circle of vines Mars stands armed with lance and shield; by his side the trunk of a tree, upon which a bird is resting; in the foreground a mass of infantry. Reverse, ET . TUERI . MDXCV. A female figure seated, facing front, with a large helmet upon her head, holding in her right hand a shield, upon which is displayed the Lion of Holland; in the left a lance; at her right side is seated an owl upon a branch. In the background is an encampment of tents. This relates to Prince Maurice's prudence in preserving his conquests and to his Mars-like valor in effecting them.

No. 34407. Obverse, FRUSTRA . OPPUGNAT . USQUEDUM . PROTEGIT . DEUS. Soldiers standing by a river bank with a crowned leader; the other side of the river is protected by a shield which a hand holds out from heaven. Under the shield are four soldiers ready for the fray, and behind them are seen kneeling three persons in prayer. Reverse, VIGILATE . ET . ORATE . DEO . CONFIDENTES . MDXCVI. A seated female figure with folded hands; upon her right a sentry is keeping watch; on her left a shield displaying a crowned lion, by the side of which is a tower, upon whose summit there is also a sentinel.

This jetton refers to the province of Zeeland being threatened by the Archduke Albert.

No. 34423. Obverse, ORDIN. | AUSPIC. PRIN. | MAURI. DUCTU. | HOSTE AD TUR | NOUTUM CÆSO. | DECEM OPIDIS. ET. | TRIBUS. ARCI-BUS. | EXPUG. ET. TOTA. | CISRHE. DITIO | NE. PACATA. | 1597. Reverse, SOLI. DEO. HONOR ET GLORIA. The Belgian lion rampant, holding a sword and bundle of arrows. This celebrates the victory at Turnhout and the recapture of nine towns.

No. 34457. Obverse, IMPERATOR. MARIS. TERRÆ DOMINUS. A full-rigged ship under sail. Reverse, LUCTOR ET EMERGO. 1602. A four-leaved rose between small crosses. This relates to commerce and navigation once more beginning to be lively.

No. 34461. Obverse, ARS. GRAVE. TOLLIT. ONUS. A man bending down over a lever is endeavoring by its means to raise a huge millstone. Reverse, INDUSTRIA ET LABORE. A spade transpiercing a crown. In the exergue MDCII.

This relates to the surrender of Grabe.

No. 34491. Obverse, SERVAT. VIGILANTIA. CONCORS. MDCVI. A ship in a storm-tossed ocean, whose waves are breaking its masts; clouds are in the heavens. Seven figures are to be seen upon the ship who are busied in taking necessary measures for the preservation of the ship and bringing it to its destination. Reverse, MODICÆ. | FIDEI. QUID. | TIMETIS. | S. C.

This refers to the general depression and consternation of the Netherlanders.

No. 34518. Obverse, FORTITUDO . BELGICA. A bundle of arrows with their points upward. Reverse, MDCXII. | INDUCIAR. | IIII. | S. C. | This commemorates the fourth year of the truce.

A quaint silver medalet of the sixteenth century has on the obverse, David playing upon the harp before Saul, and on the reverse, David slaying Goliath. A medal of Sir Humphrey Davy and one of Matthew Boulton are especially noticeable for the boldness and finish of their execution, as well as one cut by Key (the medalist of the United States Mint), bearing on the obverse a magnificent female head with the inscription, "Light, Liberty, Law."

There is also a medal issued to commemorate the twenty-first anniversary of the foundation of the Numismatic and Antiquarian Society of Philadelphia (January 1st, 1879) and the twelfth presidential term of the Hon. Eli K. Price. Its process of manufacture is like-

wise shown. First, there is the large plaster cast taken from the wax medallion originally modeled from life; this latter, being perishable, has not been preserved, but the plaster representation exhibits a perfect *fac-simile* of the original. Secondly, is the same portrait in plaster reduced by mechanical means to the size it is to occupy in the die. Third, is the *hub* upon which the portrait is cut in alto relievo by a machine which reproduces in any desired size the figure which it is to bear, and which is afterward tempered to hard steel. Fourth, the die which is struck from the hub, and shows in intaglio the portrait intended to be impressed upon the medal. It is at first soft, so as to easily receive the impression, and it is then afterward hardened so as to bear the necessary amount of pressure and blows. There are also leaden trial impressions of the dies. These show the whole process of making the dies.

The medal bears upon its obverse the portrait of the venerable gentleman in whose honor it was struck, surrounded by the inscription, ELI K. PRICE, PRESIDENT, 1879. On the reverse the seal of the Society and the inscription, THE NUMISMATIC AND ANTIQUARIAN SOCIETY OF PHILADELPHIA, *founded January 1, 1858*. The meaning of the devices on the seal is as follows: The owl, which is the crest, symbolizes wisdom and learning; it is taken from the device upon the coins of Athens, issued in the fifth century before the present era, and is a faithful copy of that archaic work of art. The shield, upon which the quarterings are displayed, is the *Saxon* shield, emblematic of English ancestry and associations; the emblems on each of the four portions of the shield represent, respectively, Europe, Asia, Africa, and America. Europe presents the cross as found upon the coinage of the first Christian Kings of England; Africa, the Egyptian sphynx; Asia, a Chinese coin, and America, the stone arrow-heads, axes, and implements of the Aborigines. The motto (*vestigia rerum sequi*) refers to the nature of the Society's occupations.

There is also a medal (in bronze) of the late Joseph J. Mickley, the first President of the Numismatic and Antiquarian Society of Philadelphia. This medal was cut by Mrs. Lea Ahlborn, of Stockholm, medalist and designer of the Royal Swedish Mint, who likewise cut the medal commemorating the four hundredth foundation of the University of Upsal. The execution of the flesh is remarkably well done, and the whole medal is a credit to the skill of the female artist.

There are also medals of Lavater, Cervantes, Shakespeare, of the *Series Numismatica*, and of Alexander I of Russia, and Louis XVI of France, deposited by H. Dumont Wagner, Esq., of this city.

There is a very large silver medal (size forty-two of the scale of the Numismatic and Antiquarian Society of Philadelphia) bearing on the obverse a view of the city of Amsterdam; in the foreground the river Amstel filled with vessels containing armed men. Above the city and below a shield charged with its coat-of-arms a hand ap-

pears holding a heart projecting from a cloud and surrounded by luminous rays. The inscription consists of these Hollandish verses:

ONS HERT EN HANDT
IS VOOR HET LANDT.

On the reverse a garland of olives incloses the words, GODT HEEFT ONS BEWAERT. Around the wreath is the inscription, ZYN HOOGHEYT WILLEM PRINS VAN ORANGE HEEFT DE STADT AMSTERDAM BELEEGERT DEN 30 JULY ENDE WEDEROM AFGETROCKEN DEN 4 AUGUSTY, 1650.

This medal appears to have been chased entirely by hand, and not to have been struck from a die. Dissensions arose among the States comprising the Dutch Federation during the early summer of 1650, and the Prince of Orange, after endeavoring to procure a peaceable settlement of the existing difficulties, resolved to obtain justice by force of arms. To this end he sent a secret order to the troops in garrison at Nimeguen, Arnheim, and elsewhere to march against Amsterdam, rendezvousing there on the 30th day of June, at an early hour of the morning, to force the sturdy burghers into submission. The Prince joined the army, after arresting treacherously six of the prominent men of Horn, Delft, Dort, and Harlem, and proceeded in his enterprise, which, however, failed of success, the citizens of Amsterdam having received timely warning. They had placed themselves in a condition of defense, and were prepared to open the sluices and dykes in order, if necessary, to flood the country and render it uninhabitable for an army. The Prince, seeing that he could not capture the city, had recourse to negotiations, the result of which was that, after an agreement had with the burghers, he withdrew his troops from before the city on the 4th of August, 1650. The present medal is one of a series struck to commemorate this occurrence. (Van Loon, Vol. II, p. 329 et seq.)

A beautiful silver medal bearing on the obverse a Janus bust on a pedestal, female head facing left, male head facing right. Above is the inscription,

VERGANGENHEIT, GEGENWART, ZUKUNFT,

AUS ALLEN SCHOEPFE DIR FREUDEN.

Reverse. Upon a band in centre extending from side to side of the medal is the sign of Aquarius between Capricornus and Pisces. Above is the sun in full glory, sending down beams which fill the whole field and penetrate a cloud which is below the band referred to.

A grand silver medal commemorates the repulse of the Turks before the city of Zenta on the Theiss.

Obverse. A river god standing holding on his left hand a victory

which is offering him a crown. In his right an urn, from which a river is flowing. Under his left arm is a tablet with the inscription,

AUSPICIIS
LEOPOLDI MAGNI
VIRTUTE EUGENII
SABAVDIE D.
EXERCIT. TURCIC.
CLADE XX. Host.
FACTA
PRIMARIIS DUCIB.
DELETIS
CASTRIS UNIVERS.
TORMENT. XCVIII.
OMNIQUE APPARATU
BELLICO
INTERCEPTIS.
CÆSUS PROFLIGAT
D. $\frac{1}{11}$ SEPT
A^o MDCXCVII

Reverse. A besieged city, in the background a river and bridge and mountains; over the town the word ZENTA. In the foreground, cannon, horsemen, infantry, camp, etc. Above is the inscription, INTERFECIT EXERCITUM EORUM ET SUBVERTIT ROTAS CURRUUM FEREBANTURQUE IN PROFUNDUM EXOD. 14.

On the edge in raised letters is the Chronogram, *En novvs ex voto felix Leopolde trivmphvs.*, making the date 1697.

A silver medal shows on obverse a winged female figure standing by a monument overhung with floral wreaths and on whose summit is a casket of flowers, and around whose base plants and flowers are growing. Inscription, DEIN SCHUTZ GEIST KRÄNZE DEINE TAGE.

Reverse. A branch with flowers horizontally across the field and dividing the inscription, MIT FREUNDSCHAFT LIEB UND FREUDE STETS —(branch)—WUNSCH AUS REINEM HERZEN GLÜCK.

There is a noble medal in gold with a clasp, evidently to be worn as a decoration, of Frederick III of Denmark and Sofia Amalia, his Queen, in commemoration of the courageous defense of Copenhagen against the Swedes under Charles Gustavus in 1658.

Obverse. A finely executed male laureated bust in high relief. Inscription, DOMINUS PROVIDEBIT.

Reverse. A laureated female bust with the inscription, SPES MEA IN DEO.

The peace of Rodschild (February, 1658) had scarcely been concluded when Charles Gustavus of Sweden formed the design of conquering the whole Kingdom of Denmark, and, under the pretext that the stipulations of the treaty were not being carried out, in the

month of August he unexpectedly blockaded the roadstead of Copenhagen. All was consternation, and the courtiers begged the King, Frederick III, to take to flight for safety into Norway. But his noble spirit revolted, and with Roman bravery he resolved to defend his capital to the last gasp, gave his personal superintendence to all the necessary preparations for its defense, planted the Royal Standard on the ramparts, armed the citizens, assigned to his officers the command of different portions of the city, and, animated by the hopes and promises of succor held out to him by the Netherlandish provinces, whose interests were in common with those of his kingdom, he resolved to perish beneath the ruins of Copenhagen, with his whole family and court, rather than fly or fall into the hands of his enemies. Nor were his hopes unfounded. When the States of Holland knew the design of the King of Sweden to be the conquest of Denmark so as to fall upon the Elector of Brandenburg and be avenged upon him for his having deserted the Swedish cause, and saw that his efforts were to obtain the complete control of the Baltic Sea to the exclusion of their commerce, they resolved to send a fleet and an army to the relief of the threatened nation, although by some it was argued that to do so might imperil their relations with France and England, which were supposed to be favorable to the Swedish pretensions. On the 17th of October Admiral Obdam set sail to succor the King of Denmark, who was continuing to defend his capital with valor and fortitude, although the enemy had become masters of the Castles of Cronenbourg and Helsinbourg and held the mouth of the Sound blockaded by their vessels, so that the Hollandish fleet, in order to bring relief to the besieged, would be obliged to run the gauntlet of the fires of these two fortresses and at the same time manœuvre their ships in a narrow passage to avoid the dangers of an intricate navigation. On the 8th of November the Admiral divided his fleet into three squadrons and proceeded to engage the enemy's vessels, manned chiefly by Scotch and Irish sailors, and commanded by the illustrious Wrangel, as Captain General of the Kingdom of Sweden. About nine o'clock in the forenoon the conflict began and raged for six hours with great fury in the presence of the King of Sweden himself, who, in company with his wife and sister and other personages of high rank, watched from the Castle of Cronenbourg the fortunes of the fight. The Swedes fought bravely as ever, but the extraordinary valor of the Hollanders was ultimately crowned with success. Of the enemy's vessels they captured three and burned and sunk eight others, forcing the rest to take to flight, thus permitting a juncture to be made with the Danish flotilla under Admiral Bielke. The Sound was opened by valor and force of arms and the Swedes chased out of that sea by a most glorious victory, whose memory was preserved in this and some other medals.

A silver medal presents on the obverse Neptune boldly engraved standing in a chariot drawn by two horses upon a stormy ocean whose waves are lashed into fury by Æolus in the right corner. In

Neptune's left hand is his trident upright; his right is extended open, pointing right. Upon the seat of the car is a crown. Inscription, MOTOS. PRÆSTAT. COMPONERE. FLUCTUS.

Reverse. Upon a calm and stilly sea is floating a nest in which are two halcyons. On the right the setting sun is illumining by his rays the whole field of the medal. Above on a band is the inscription, HALÇIONIBUS. REDUCTIS. SENATUS. AMSTELOD. CIVIBUS. SUIS. HOC ANTIQUÆ. VIRTUTIS SPECTATÆQ. FIDEI PRÆMIUM. LARGITUR.

In the exergue, MDCXCVI. (Vide Van Loon, Vol. IV, p. 221.)

It would be hardly credible what a tumult could always be started in the Netherlands from the most trivial causes were not history so very explicit. The present medal was struck to commemorate a sedition which grew out of an ordinance regulating the number and the salaries of the criers at the public funerals. Those who were excluded from this employment felt at one blow their whole subsistence taken away from them; were full of discontent and clamored loudly against the Magistracy, alleging that their offices had been wrested from them in order that the underlings and parasites of their rulers might be provided for comfortably. To further augment the popular feeling it was given out that the bodies of the poor were mutilated by branding previous to interment. The people became inflamed and maltreated the new criers wherever they met them, till at last, emboldened by the usual applause and serenity of the bystanders, on the night of the 30th of January, the day preceding that on which the new regulation was to go into operation, they assembled in great numbers on the *Dam*, a public place in front of the Hotel de Ville. The troops were called out, but their presence only served to increase the tumult, while the populace, armed with stout cudgels, formed themselves regularly into companies, rallying under aprons of blue cloth and beating for drums upon empty beer-barrels.

The mob continued to grow and traversed the streets like madmen, followed by a troop of children. Arrived at the *Aelmoesseniers Huis*, they put to flight the soldiers placed there as a guard to the syndics of the criers of funerals, and fired by their exploit in thus having overturned constituted authority, they turned to pillage the houses of obnoxious officials. The Burgers were called to arms, now realizing that the rioters intended to sack the city if possible, using their grievances merely as a stalking horse. Night fell upon the scene, but in the early morning, before the citizens had assembled to take arms, the rabble came together again, and, after pillaging with renewed fury, laid siege to the house of Burgomaster De Vries. The Magistracy now issued an order declaring that force must be resisted by force; the citizens assembled and marched toward the field of battle, fired upon the riotous assembly, killed two, and put the others to flight. Whilst this was taking place, a portion of the mob engaged in sacking the house of a rich Jew named Pinto (and could there ever be popular uprising in Europe without a Jew's house being pillaged?) was fallen upon by another detach-

ment of citizens, who drove them away at the point of the sword. The bridges were all raised, and the gatherings in other quarters dispersed by a summary administration of justice.

Two of the robbers taken in the field were hung to the neighboring lamp-post, and a strong force was posted on the Dam and other exposed parts of the city. At the first news of the insurrection the regiment of Guards, which was stationed at 'S Gravemoer, had taken up its march toward the city to assist, if needed, in quelling the disturbance, but when distant only two leagues from Amsterdam, the Council did not judge it expedient to receive the troops, but thanking them heartily for their zeal, begged them to hold their present position unless it should so happen that the riot could not be put down by the fidelity and the valor of the citizens. Volunteers under the command of Messrs. Hinlopen, Six, Burg, and Huydekooper patrolled the streets to preserve order until the 4th of February. On the 6th, six of the rioters were executed, and the corpses of four others, who had been killed in the tumult, were hung by the feet on the same gallows. Several of the survivors were shut up in the House of Correction.

The Magistracy, sensible of the zeal and courage of the train bands and of the volunteers, and desiring to exhibit in an honorable way the gratitude of the citizens, caused the present medal to be engraved in three different sizes, which, on the 28th of November of the same year, were distributed publicly to all the troops, each man receiving a different size according to his rank.

A silver medal bears upon the obverse a widow seated between two children in a cemetery, pointing to the all-seeing eye in the heavens in a triangle surrounded by rays from which an angel is descending and emptying upon their heads the contents of a cornucopia. On the left is an obelisk (upon which is engraved the letter C), surrounded by English yew-trees. Above, on a ribband, is the inscription, *HY IS DER WEEZEN VADER*. In the exergue, *TER GEDACHTENIS AAN DE weezen uit gedeeld*.

The reverse exhibits three sides of a building inclosing a courtyard; above is the inscription, *LUTH. DIAC. WEESHUIS*. In the exergue, *gesticht MDCLXXVIII. Jubile gevierd 24 Aug. 1778*.

A bronze medal commemorates an Industrial Exposition, held at Berlin in 1844. Obverse, Germania seated upon a rock holding a wreath in right hand, a sword partially drawn from its scabbard reposing on her lap. Her left hand rests on the rock, which bears the inscription, *Seid einig*. Exergue, *GERMANIA*. Inscription, *ERINNERUNG AN DIE AUSTELLUNG DEUTSCHER GEWERBSEERZEUGNISSE ZU BERLIN, 1844*. Reverse, a locomotive crossing a bridge. Around this is a wreath on which are five shields with emblems respectively representing navigation, manufactures, mining, philosophy, and agriculture. Inscription, *VORWAERTS MIT DEUTSCHEN FLEISSE UND DEUTSCHER KRAFT*.

A bronze medal represents on the obverse a King standing by a throne, with his right hand extended in the act of swearing, between

two female figures. The one on the left holds a tablet on which is inscribed GROND WET; that on the right, a spear. Inscription, NEDERLAND 12 MEI 1849; exergue, *Je maintiendrai*.

Reverse, a female uncovering a male portrait before a throne, and a kneeling female inscribes upon tablet XXV JAAR. Inscription, NEDERLAND 12 MEI 1874; exergue, *Jubilæum*.

A fine bronze medal exhibits a beautiful laureated head of Napoleon within a wreath tied with ribbands on which are inscribed, *Wagram, Tivoli, Pyramids, Marengo, Luneville, Amiens, Codes, Legion d'honneur, Austerlitz, Jena, Tilsit, Simplon*.

Reverse, a view of the Island of St. Helena, with ships in the foreground, setting sun to right, eagle on branch in air. Inscription, IL MOURUT SUR UN ROCHER. Exergue, *Ile Ste Helene. 5 Mai 1821*.

A gilt medal bears on obverse, a male bust in costume of the fourteenth century and inscription, JOAN GALEATUS VICE COM. A FUNDAMENTIS INCHOAVIT AN. MCCCLXXXVI.

Reverse, the Cathedral at Milan, with the inscription, LATUS. ECCL. METROP. MEDIOLANI.

A bronze medal bears on the obverse a Cathedral with date in exergue, 1342-1516. Inscription, DER VÄTER FROMMER SINN RIEF DICH INS LEBEN. Reverse, the rear of the same building in a ruined, incomplete condition; in exergue, *zerstört am 7 Mai 1842*. Inscription, VEREINTE KRAFT WIRD WÜRDIG DICH ERHEBEN.

A white metal medal, on obverse an unfinished Cathedral with date in exergue, 1242. Inscription, as follows:

DAS ALTE CÖLN HAT EINST GEGRÜNDET
DIES WUNDERVOLLE GOTTESHAUS;

Reverse, the same finished with inscription,

DOCH DEUTSCHLAND HAT SICH JETZT VERBÜNDET
UND BAUT MIT GOTTES HÜLF' ES AUS.

Exergue, the date 1842.

A bronze medal commemorating the Massacre of St. Bartholomew bears on the obverse the head of Pope Gregory XIII; on the reverse an angel armed with sword and cross destroying and putting to flight a multitude, with the inscription HUGENOTORUM STRAGES.

It may be observed in regard to this medal that doubts have been cast as to whether it was actually issued by the Papal authorities, but rather that it was done by those inimical to the Church of Rome, in order to cast discredit upon it by appearing to exult over such a scene of carnage. The present medal, however, is of most undoubted genuineness, having been purchased in Rome with the whole series of the Pontifical Medals direct from the Superintendent of the Papal Mint. The author of *La Science des Medailles* (Paris, 1715), says, *il ne faut pas confondre avec les veritables medailles des Papes, certaines que les ennemis du Saint Siege ont fabri-*

quées pour les insulter, ou pour les rendre odieux. Telle est celle du Jules III avec cette inscription qui lui sert de revers, GENS ET REGNUM QUOD NON SERVIERIT TIBI PERIBIT. Telle est la Medaille de Paul III, ΦΕΡΝΗ ΖΗΝΟΣ ΕΥΡΑΙΝΕΙ, que l'on ne doit jamais placer parmi les medailles veritables. (No. 52 in the Hockley collection. See post.)

Pinkerton, however, is of the opinion that this latter described medal is genuine and was cut by Michael Angelo. It is certainly a handsome piece of workmanship, and would do no discredit even to that great artist if the attribution be correct.

All the medals before Paul II, according to the same author, were issued during the Pontificate of Alexander VII. It is stated that the Abbé Bizot had the design of issuing a full line of all the Popes, which he was prevented from accomplishing by the death of the reigning Pontiff under whose auspices the undertaking had been begun.

Pinkerton states that the medal of Julius II, "*contra stimulum ne calcitras,*" is the first medal which was struck instead of being cast. He attributes to Cellini the medal of Clement VII, "*ut bibat populus;*" that of Gregory XIII, upon the reformation of the Calendar (130) to Parmegiano and to Bassiano and Cavino (the celebrated Paduan forgers) the dies of the medals of Julius III.

CASES 17-21.

An especial attention should be given to a remarkably complete series of Papal medals, seven hundred and sixty-four in number, starting from Pope Martin V (1415), and ending with Pius IX. These medals were deposited by Thomas Hockley, Esq., of Philadelphia. They are of fine execution and of great historic interest. Among them may be found two engraved by BENEVENUTO CELLINI, one of Clement VIII (1523-1534), No. 47, representing Joseph making himself known to his brethren (being in allusion to the Pope's fraternal feelings toward the Florentines, his compatriots, despite their slight gratitude toward him); another, No. 52, of Paul III (1534-1549), exhibiting a bust of that Pope with Ganymede, and an eagle on the reverse.

This magnificent series is replete with interest, historical, architectural, artistic, and numismatic. Many of the public works and buildings of Rome are figured both in their former and present conditions; churches, basilicas, façades, palaces, aqueducts, armorial bearings, sepulchres, canonizations, victories, are all represented in this (very rarely) complete collection. The workmanship is of the highest order of merit, and the medals are in the finest possible condition.

According to Henin, there are six grand chronological epochs of coinage, all of which may with great certainty be known from the indications afforded us by the metals, the legends, the form of letters, methods of fabrication, and style of art.

First. From the first invention of coinage to the time of Alexander I, King of Macedonia, *i. e.*, from about the seventh century B. C. to the year 454 B. C. This was the rudest epoch of the art; the metal was mainly silver, some little gold, and no copper. The form of the coins was globular and irregular, bearing on the reverse the rude punch mark (*creux carré*), and sometimes the incused figure of the obverse. The legends were of the simplest character, being only the names of cities or magistrates, sometimes from left to right, sometimes in the contrary direction, and sometimes returning in the manner known as *Boustrophodon*.

The artists who produced these coins did so without models or the accessories of a later age, and arrived, nature led, at a style both sublime and true. A remarkable difference exists between ancient and modern coins, the former being of extremely bold execution and high relief, while the latter are comparatively flat and low, the *haut relief* preserving the types of the coins longer after entering into circulation.

Second. From the death of Alexander I to the time of Philip II, the father of Alexander the Great, B. C. 359.

It was during this period that the arts obtained a very high perfection in Greece, and it has been believed that the fine engraving upon coins was executed by the hands of artists skilled in the working of precious stones. Copper coinage, but in small quantities, now began to be used as currency, being first struck (in Macedonia) by Amyntas II (307 B. C.), and is referred to in a passage in *The Frogs* of Aristophanes as having been but lately introduced into Athens. Simplicity was still preserved in art, leading to the grandest results.

Third. From the accession of Philip II to the subversion of the Roman Empire by Augustus Cæsar (B. C. 30).

Now the arts had reached their apogee, and coin after coin may be cited as masterpieces of the skill of the ancients. The inscriptions became more complex, embracing titles of magistrates, divinities, dates, monograms, and similar indications. Regularity and exactness are now more characteristic of the coinage, and the art of striking reached a greater degree of precision than ever before. The mechanical means employed were still simple, and remained so for many centuries; the remarkable results obtained from such slender appliances are the more noteworthy from that fact.

Fourth. From Augustus to Hadrian (A. D. 117). The decadence of art and the diminution of the importance and prerogatives of the Grecian nations began now more sensibly to make themselves perceptible. The moneys struck by independent cities lessened in number and excellence, and many nations lost their former right of coinage. Copper began to usurp the place of other metals, being issued in much larger quantities than formerly, and the art of coinage commenced to exhibit symptoms of decay, although faint suggestions of former grandeur occasionally occur.

Fifth. From Hadrian to Gallienus (A. D. 260). Great and rapid was the decline of art in this period, full of troubles of all kinds for the Empire, surrounded by barbarians, and torn by intestine dissensions.

Sixth. From Gallienus to the fall of the Eastern Empire (1453). The arts fell completely into barbarism during this long interval. There is but little to attract in the coinage of either the Eastern or Western Empires and much to repel. The coins became harsh and hard and finally lost all traces of any pretensions to the name of art. The imperial Greek, the Colonial, and the Autonomously series had long disappeared; the only circulating medium was the Roman coinage, now become barbarous in the extreme and small in number.¹

CASE I.

The exhibition of coins naturally starts with one of the earliest of all known coinage, (about 600 B. C.), the *Persian Daric*, of which an example in silver is shown. It bears on the obverse a kneeling archer, while the reverse is simply the rude punch mark, such as is found only on the most ancient coinages. It is to these coins that allusion is made in the story told of Agesilaus having been overcome by thirty thousand archers, meaning that that amount of Persian daric had been expended to procure his defeat.

Two large silver coins of Athens (known as Tetradrachms from their size), one about 400 B. C., the other perhaps two hundred years later, exhibit the modification of type and change of workmanship. On the reverse, the rude archaic owl in bold relief with great staring eyes has given place to a less aggressive bird; the simple inscription ΔΘΗ has received in addition the names of the moneyers; the diota and olive branch lend additional significance to the bird of wisdom. On the obverse, the thoroughly Egyptian type of face displayed on the helmeted head of Pallas has been metamorphosed into the now generally received conventional type of Greek art. In antiquity these coins were known as *maidens*, referring to the spinsterhood of the goddess represented upon them, and also as "owls," from the figure upon their reverse. In one of the Greek dramas a miser is spoken of as having myriads of owls roosting beneath his roof, meaning that he had large quantities of these coins concealed in his house.

A fine Cistophorus of Apamea presenting the sacred *cista* of Dionysos enveloped by serpents is worthy of particular notice. The cistophori are tetradrachms, which bear as their generic type a wreath and berries of ivy, surrounding a chest whence issue serpents, being in reference to those carried in procession by the Bacchantes in their orgies, especially in Asia Minor, where the snake was revered and considered as an emblem and tutelary god. All the cistophori which exist are tetradrachms of silver, uniform

¹ Henin, *Numismatique Ancienne, passim.*

in weight and fineness, and were struck by some one of the following cities, viz. : Apamea in Phrygia, Ephesus in Doria, Laodicea in Phrygia, Pergamos in Mysia, Sardes and Tralles in Ionia. They were of such exceeding purity and fineness that the Romans would receive no other coins in payment of the tribute moneys exacted from the cities of Asia Minor. For this purpose they were coined in great abundance, and in ancient days were very plentiful, although at the present time they have become of quite rare occurrence. M. Acilius, in his triumph from Corinth, bore in procession 288,000 cistophori, Cn. Manlius Vulso, 250,000; L. Amilius Regillus, after a victory over the Antioch fleet, 131,000; Scipio Asiatica, 331,070. It is probable that these pieces, upon their arrival at Rome, by reason of their superior fineness and quality, were at once recoined—a fact which would account for their present scarcity.

Cista mystica existed in the sacred rites of Panathenæa, of Diana, Eleusinia, Ceres, Theogamia Proserpine, and the Dionysia or orgies of Bacchus.

Upon the tetradrachms of Eleusis, serpents were the symbols surrounding or issuing from the cista, either as representing divine attributes or the fable of Erichthon. On others, surrounding the chest were various emblems, such as combs, the pudenda muliebri, food, drink, or fruits, and it was looked upon as a heinous sacrilege to divulge the meaning of these recondite objects.

A type also exists in which Bacchus, in womanly garb, is figured seated upon the cista mystica, holding in his right hand a thyrsus, below which are two serpents knotted and twined together. Chests, whence serpents are out-issuing, are found on the coins of Anchialis in Thrace, Sardis Nikaea, Pergamos, Perinthos, and Teos.

A quinarius of Augustus Cæsar exists on which is engraved the cista between two serpents, and over which hovers a victory with the inscription ASIA RECEPTA.

A fine tetradrachm of Bœotia exhibits on the obverse the familiar Bœotian shield, and on the reverse a cippus. The type of the buckler took its origin from the renown acquired by the workmen of this nation from their skill in this manufacture. In Homer we find mention made that the shield of Ajax was made at Hyle in Bœotia. Some authors have imagined it to be a perverted type of the Egyptian scarabæus, while the cippus represents the purifications and lustrations used in the worship of Bacchus. This latter opinion seems to be further borne out by the fact that the head of the Indian Bacchus is also frequently found upon the coins of this country.

A didrachm (*i. e.*, a piece of two drachmas) of Tarentum exhibits Taras, the fabled founder of the city (a son of Neptune), riding upon a dolphin. The coinage of Tarentum is numerous, presenting many different types, is always well executed, and exhibits a high degree of culture and art.

A didrachm of Argos shows on the obverse a running wolf, while

the reverse has solely the letter "A" within the rude punch mark characteristic of the ancient period of its coinage.

On Messina we find the type to be a running hare, on the reverse a figure in a chariot, of which the execution while bold is rather rude. Messina is fabled to have been founded about 1600 B. C. under the name of Zancle, an appellation which was changed about 594 B. C. Destroyed by the Carthaginians in 396 B. C., it was subsequently rebuilt, and in 282 B. C., after having been captured by the Mamertines, it received the name of Mamertina.

Rhodus presents the radiated head of Apollo, and on the reverse a rose, being a so-called speaking type. Spanheim, however, considers this flower not to be a rose, but the Punic apple (*Balaustus*), citing Isaac Vossius as his authority. This plant was used for dyeing vestments, and is still known to the modern Arabs. According to Theophrastus, its flower resembled that of the rose, and Clement of Alexandria states that in the Thesmophoric rites women were not allowed to make use of it.

Upon the coins of Massilia (now Marseilles) we find a walking lion of fine workmanship; on Syracuse, the head of Proserpine in an incuse surrounded by dolphins, on the reverse a figure in a chariot. In the coins and medallions of Syracuse ancient art reached its highest pinnacle of perfection; they are beautiful of design, grand and graceful of execution, bold of relief.

There are coins of Alexander the Great of Macedon, and a fine Tetradrachm of his father, King Philip II, bears upon the obverse a powerful head of Zeus, on the reverse, a horseman wearing the hat peculiar to Macedonia, surrounded by the inscription ΦΙΛΙΠΠΟΥ. The celebrity of the Macedonian and Thracian horse probably led to its adoption as a national type.

An extremely rare and fine silver coin of Juba II, King of Numidia, is noteworthy on account of its historical interest as well for its artistic merits. It bears on the obverse the head of that monarch with curly hair and a conical cap; on the reverse a temple.

Tetradrachms of Antiochus, and one of Lysimachus, of magnificent workmanship and grand design, in the finest possible preservation, must especially claim the attention of the student as examples of Grecian art in its finest stage of development.

There is a very interesting silver coin of ancient Spain. It bears on the obverse a head with a stern, forbidding countenance, and crisp, curled hair and beard, calling to mind the conventional Assyrian type. There are also certain rude letters both on the obverse and on the reverse. It is the current opinion among Numismatists that these coins were copied after those issued by the early Greek monarchs with such changes as the lack of skill on the part of the artists would naturally cause. The reverse exhibits a horseman charging with a lance, seated upon a steed whose forefeet are raised in motion from the ground. The action is spirited, and by no means so stiff as the low state of the arts would have warranted us in expecting.

The head on the obverse does not, in my opinion, bear out its presumed Greek origin, and I incline to the belief that it is rather a representation of some one of their gods, possibly the Phœnician Hercules.

The first settlements in Spain were those of the Carthaginians, established ages before the earliest known periods of classical history.

There exist numerous varieties of those early Spanish coins with various inscriptions, which have only been deciphered in the last few generations, and even as yet their true signification is in doubt. The author of *La Science des Medailles* (Paris in 1715) speaks of these coins as being truly *medallas desconocidas*, which no one had undertaken to collect or reduce in order, although "Lastanosa ait crû rendre un grand service aux curieux, de se donner la peine d'en faire un Volume, qui fut imprimé à Huesca en 1645 ou il a fait graver environ deux cents de ces medailles qu'il avait dans son Cabinet, la plupart d'argent."

Lastanosa had an insight into the true status of these coins which had been considered as bearing Punic letters. He maintained that the characters on them were those of the early language of Spain, and that it was to these coins that Pliny referred when speaking of the booty carried away by the Romans from Spain, *argentum signatum oscense*.

The coin of which we have been speaking has been ascribed by both Henin and Akerman to the city of Tarragon, the capital of the province of the same name, much celebrated in ancient authors for its beauty and opulence. Pliny writes of it that it was *Scipiorum opus ut Carthago Pœnorum*. Augustus erected in honor of his visit an altar, upon which subsequently a palm-tree grew. It issued coins while under the dominion of the Romans, and there are some extant bearing the heads of the Gothic rulers of Spain.

Carthage is probably one of the best known cities of antiquity, and abundant specimens of its coinage have descended to our own times. The pieces in the exhibition are small bronze coins bearing on the obverse the head of Demeter (or Persephone) adorned with necklace, earrings, etc., and on the reverse the figure of a horse and a palm-tree.

The Carthaginians adopted from Sicily the worship of Demeter and Persephone, and the horse possibly refers to Libya, which was famous for its horses, or perhaps to the horse's head fabled to have been dug up at the foundation of the city. Carthage was ultimately destroyed by the Romans 146 B. C., and the coin was probably issued about the third century before the present era.

There is a very fine didrachm of Velia, in Lucania, a large and prosperous city founded by the Greeks, bearing on the obverse a beautifully executed head of Apollo, and on the reverse a lion in the act of leaping upon a stag, which it is rending to pieces. The muscles are admirably portrayed, and the action is depicted entirely without stiffness, but with the ease and grace which arises from the

consciousness of power and strength. Greek culture alone could have produced such fine specimens of Art. Velia is now known as *Castela mar della Brucca*, and lies between Policastro and the Gulf of Salerno. It was mentioned by both Strabo and Pliny, and was the seat of the Eleatic sect of Philosophers, who received their appellation from the city; their leaders were Zenophanes, Parmenides, Zeno, and Melissus. The speculations of this school rose to a higher region of pure thought than those of the Ionic or Pythagoric schools, and among the Eleatics for the first time comes distinctly into play the dialectical movement in human thought.

Corinth, in Achaia, is represented by a fine didrachm, bearing on the obverse helmeted head of Venus; and on the reverse, Pegasus, with the letter Q (Koph), the ancient or Phœnician form of K. "A city," says Strabo, "large, rich and prosperous; replete with men fit for the handling of every sort of affair, civil, artistic, and political." Founded by Bellerophon, the type of the reverse refers to his subjugation of the steed Pegasus.

The coinage of this city exhibits a high degree of artistic culture, a thorough proof, were any wanting, of the truths which history records of its refinement and luxury. From the earliest days of its coinage, when the reverse was simply the rude punch mark, to the last periods when its money was issued, the pieces struck and engraved for this city are worthy of a high rank and possess a great merit.

The very first coins issued by Corinth bear on the obverse Pegasus, with the archaic Q (Koph), which disappeared from the later Greek alphabet. Reverse, the so-called key pattern punch mark. The execution of the flying horse is very bold.

This city was colonized at a very early period by the Phœnicians, and was destroyed by the Romans under L. Memmius, B. C. 146. The present piece was issued about 480 B. C.

It is interesting to compare the coinage of this city with that of Sybaris, both of infamous renown for the pursuit of pleasure.

There are also specimens of what is known as the *incused coinage* of Magna Græcia. These pieces were issued by the Grecian colonies settled in lower Italy, and are probably the most remarkable specimens of the monetary art which have ever been produced. Instead of being thick and hemispherically raised toward the centre, they are thin and flat, and bear on the reverse in intaglio the same subject which the obverse bears in alto relievo. This coinage had been abandoned before the sixth century B. C. and all these coins are of very great antiquity, yet their workmanship is fine and artistic, even when the design is of the simplest. What the object for the adoption of so peculiar a form could have been, has been the subject of numerous conjecturés, but as yet none seem satisfactorily to explain this abnormal condition of coinage.

The specimens which the Numismatic and Antiquarian Society has placed on exhibition are SYBARIS and METAPONTUM.

The coinage of Metapontum bears on the obverse an ear of corn,

on the reverse the same incused. This city was founded about 700 B. C., by a colony from Northern Greece, and its prosperity became exceedingly great, owing to the fertility of its soil, which was especially rich in wheat. The Metapontines sent annually to the temple at Delphi a golden sheaf of wheat, and considered Ceres as their tutelary goddess, impressing her emblem, the ear of corn, upon their coinage.

Sybaris presents, on the obverse, a bull standing and looking backward, and the same type incused on the reverse, with the inscription ΥM , being written from right to left, in the most ancient manner and with the *sigma* of an archaic type, resembling a *mu*. The history of Sybaris and its successor city, Thurium, is well told by Dr. Cardwell.

“The people of Sybaris, on the bay of Tarentum, were conquered and their city destroyed by the Crotoniats about the year 500 B. C. Fifty-eight years afterward the Sybarites endeavored to rebuild their city, but were again driven away six years later by their old enemy. The aid of Athens and the Peloponnese was invoked, which in 444 B. C. laid the foundations of Thurium, near the site of the ancient Sybaris, taking the name from a fountain in its neighborhood. Soon the foreign element prevailed over the Sybarites and put them to the sword. * * * What then is its numismatic history? We have several coins of Sybaris, bearing in the form of their brief inscriptions and workmanship the strongest evidence of high antiquity, so that we may fairly assign them to a period fully five centuries before the Christian era. The constant device on these coins was *Bos stans et respiciens*, showing that it was the acknowledged cognizance of Sybaris. The next coins belonging to the place are more recent, as we may judge from the form of their letters and their highly finished style of workmanship, and, taken on the analogy of coins in general, they might be assigned to a period not much anterior to the time of Philip and Alexander. But we find from these that the devices of the place have undergone an important change. The ancient cognizance of Sybaris is now of secondary consequence, and has given way on one face of the coin to the *Caput Palladis*, the well-known badge of Athens. The inscription, too, is in one instance the abbreviated word Sybaris, in another a similar abbreviation of the newly contracted name, Thurium. So then, these coins strictly mark the period when the natives and foreigners were living together in compact, mutually endeavoring to conciliate each other, each party preserving tokens of its hereditary attachments.

“The next set of coins is distinguished by a minuteness of ornament which marks them decidedly as the most recent of the three, and these coins, in perfect accordance with the historical narration, bear no memorials of the ancient Sybaris. The inscription in every instance is of Thurium, the *Caput Palladis* is prominent, and the ancient cognizance of the Bull is no longer *stans et respiciens* but *irruens et cornupeta*. Doubtless there was found in the meaning of

the word *θουριον*, a reason for the difference they adopted 'a bull running and butting.'

"The symbol of the bull¹ plays an important part in many mythoses. This animal was intended to represent power of body and unwearied masculine energy, two great attributes especially coveted by ancient kings and great men. The bull seemed to be, in a manner, sacred to Venus, whilst the lion was emblematic of the male creator. The bull and the lion, among the Assyrians, occupied much the same place as the lion and unicorn do in modern heraldry. Lajárd (*Culte de Venus*) has summed up the matter in the following words:

"Les deux principaux attributs caracteristiques de Vénus furent en orient comme en occident le taureau et le lion, l'un symbole du principe de la chaleur et du pouvoir generateur actif, l'autre, symbole du principe humide et du pouvoir generatif passif; et tous les deux signes du Zodiaque, mais avec cette difference que le taureau était le premier signe de l'équinox vernal et la domicile de la lune à l'époque de sa plus grande exaltation, et que le lion placé au solstice d'été était le domicile du soleil pendant la canicule. Ces deux animaux furent donc aussi les hieroglyphes ideographique de l'hermaphroditisme de Venus, divinité à laquelle les anciennes traditions assignent, comme à Mithra, une place entre les equinoxes et les solstices et donnent pour monture le taureau." In another passage he writes thus: "Premier être sorti des mains d'un dieu créateur du monde, le taureau, symbole de vie, est appelé d'un nom qui signifie à la fois *vie* et *taureau*. Par une conséquence immédiate d'une doctrine qui enseignait que les premiers êtres vivants étaient né dans l'eau, il est, en même temps, le symbole de principe humide, du pouvoir passif de la génération ou du sexe feminine." (*Inman's Ancient Faiths*, Vol. i, p. 376, *et seq.*)

Not a trace now remains of Sybaris, this great city which once ruled over twenty-five of its neighboring towns, and sent into the war that resulted in its downfall three hundred thousand fighting men. Nothing is known of its mansions and palaces; not one stone is left to show the spot where "men slept upon beds of roses and those renowned banquets took place to which women were bidden a year in advance that they might have the whole interval for rendering their beauty more irresistible."

There is a fine Tetradrachm of the famous city of Tyre (in Phœnicia), bearing on the obverse a laureated head of Hercules, on the reverse an eagle on rudder behind a palm branch, to left date ΗΙ (year 18), inscription, ΤΥΡΟΥ ΙΕΡΑΣ ΚΑΙ ΑΣΥΛΟΥ.

¹ The types that occur on the coinage of the ancients are manifold. The bull, the emblem of strength and force, is often found joined to a human head, as on the coins of Gelas (Case 1) where it signifies human intellect and physical perfection. The bull occurs also in combat with the lion, symbolizing the conflict of the fire element (or the sun), and that of water (*i. e.*, the bull); this type is often found upon the Persian coinage. The serpent, also, frequently represents the ocean.

Tyre was one of the grandest cities of all antiquity, and its commerce and riches are frequently spoken of in the classical writers. From Tyre, as from modern London, ships went to visit all parts of the globe to which they could reach; and to Tyre came merchandise from all parts of the continents of Europe and Asia. According to Herodotus it was founded about 2755 B. C., and received its independence about 126 B. C. After a very long period of life, with checkered prosperity, Tyre was finally destroyed by the Saracens, after having undergone many sieges, including one by Alexander the Great. This coin was therefore issued about 108 B. C. The execution of this coin is especially noteworthy. The massive boldness of the head of Melkarth (the Tyrian Hercules) exhibits a brutal and repelling countenance; the eagle (sacred to this god) on the reverse is in an attitude of life-likeness almost unsurpassable. The rudder exhibits the maritime character of the city, and the palm was the emblem of Tyre and Sidon. Phœnicia is fabled to have taken its name from this tree, which in Greek was known as ΦΟΙΝΙΣ. The palm was likewise the well-known emblem of victory. As found upon coins it is, according to Spanheim, of three varieties, viz. :

1st. That which is tall, thick-branched and leaved, but bears no fruit.

2d. Smaller, less dense, and bears fruit.

3d. The small sterile dwarf palm.

The palm-tree of Judea, which bears fruit, is found upon the coinage of that country. As a branch, the palm is found upon the coins of Arabia; as a tree, upon those of Tyre, Damascus, Alexandria, and the Phœnician Colonies of Sicily, Africa, and Spain.

The palm-tree was one of the ornaments sculptured in Solomon's Temple, and among modern writers (*e. g.*, Inman's *Ancient Faiths*) has been considered to be a Phallic emblem equivalent to Asshur. "On a coin of Ephesus a palm-tree is represented as springing up by the side of a stag cut asunder, meaning that the 'Great God (Kronos or Ilos) being cut off, the palm-tree repairs all.'"¹

There is also a number of fine copies of rare Grecian coins (Case 1), and an especially noticeable selection of forged Roman first bronzes, executed by the celebrated Paduan forgers, Jean Cavino and Alessandro Bassiano, in the sixteenth century. The work of these artists has long been sought after on account of its exceeding great merits of design and execution, worthy to rank with the best workmen of antiquity. Many of these pieces are pure inventions of the forgers' brains, no originals ever having existed, while others are well engraved counterfeits. These were originally sold only as copies of antiques, but their makers were subsequently induced to dispose of them as genuine.

The boldness of design and power displayed in the treatment of their subjects is of a very high degree of excellence.

¹ Inman, Vol. i, p. 196.

The coinage of the ancient Greeks was very rarely (if ever) of a circular form, owing to the imperfection of the process employed. They did not possess the knowledge of the collar, by which in modern times accuracy in striking is insured, and the result was in many instances that the coin contains only a portion of the device or inscription, the rest having failed to reach the planchet, as there was no means of holding it firmly in place to receive the stroke of the hammer.

The earliest Kings who placed their portraits upon coins, did so under the garb or disguise of gods and heroes; thus Alexander the Great appears as Herakles and Jupiter Ammon; Lysimachus, as the Horned Bacchus, and other examples will readily be found. Their portraits professedly as that of human beings appeared on no coin till after the death of Alexander the Great, and even then the change took place with great caution and circumspection.

Sublimity is the leading characteristic of the coinage of the ancient Greeks, and appears even upon the very earliest known specimens.¹ This arises from the simplicity of thought and object with which these coins were designed and executed, the cause of the calmness and the repose of the Grecian art. Even the most archaic types possess this property, although in the transition stage from the rude to the excellent. Neatness and stiffness constitute archaism in art, and the condition of the early Greek mind has been very justly compared by Humphreys to the quaint productions of the masters of the fifteenth century.

Grecian art attained its highest perfection during the third period already alluded to, viz.: From the accession of Philip II of Macedon to the final subversion of the Roman liberty under Augustus Cæsar. In the cities of Magna Grecia, it reached a most extraordinary degree of culture, regardless of their not far distant neighbor, the robber city, founded by outlaws, and living by rapine, that city, whose ambition, still comprised within petty limits, had not yet broken its bounds to fly its conquering eagles above a prostrate world.

CASE 2.

Rome now claims our attention. Its series is composed of gold, silver, and bronze. The oldest silver pieces, denarii, are of the value of ten asses (the letter X, which so often occurs upon them, is the exponent of their value), and bear the galeated head of Minerva on one side, on the other the Dioscuri; sometimes on the reverse a biga or quadriga. Later the names of illustrious families appear on them, whence these have often been termed family coins, as, for example, the name of COCLES on those of the Horatian gens; sometimes emblems of types commemorating heroic exploits or punning upon their own names, as upon the coins of Publicius Malleolus we find a hammer, of Valerius Asciculus, a pickaxe; or

¹ Humphreys.

Aquilius Florus, a flower ; of Lucretius Trio, the seven stars (Septemtriones), etc.

Upon certain of these coins we find deities appropriated, thus *Juno Sospita* on the families Cornificia, Mettia, Pappia, Roscia ; *Ceres* on Claudia and Vibia ; *Libertas* crowned with laurel and veiled on Sestia ; crowned with olive branches on Licinia ; crowned with laurel on Junia ; veiled on Æmilia and Calpurnia. Sometimes *Libertas* appears as a female standing, holding in her hand a liberty cap, in her left the rudis or rod, whose touch manumitted slaves. Upon the early copper coinage of the United States we find the head of liberty accompanied by the cap and rod, being in allusion to this Roman custom.

Among the family coins in the exhibition there is one of the gens *Cornelia* bearing on the obverse an archaic head of Minerva galeated and the inscription SULA ; one of the gens *Hostilia*, obverse a diademed head of Venus, reverse, a victory walking, holding caduceus and palm branch, inscription SASERN L. HOSTILIUS. Saserna was the cognomen of this noble family, which deduced its descent from King Tullus Hostilius. Some of their denarii bear the head of Pallor or Pavor, to whom that monarch vowed a temple upon the occasion of his battle with the Veientes.

A denarius of Julius Cæsar bears an elephant trampling upon a snake which is rearing its head ; reverse the simpulum, adspergillum, apex, and securis victimaria, emblems of his pontificate. The elephant is said to refer to his victories over Juba, King of Numidia, and the subjugation of Africa, of which it was the symbol. Other authorities consider it as a speaking type, asserting that the word Cæsar, in the Punic tongue, signified an elephant. One author has informed us that these sacred emblems (whose use and meaning is so well known to us) were nothing but the weapons with which the Romans were wont to fight against elephants in the time of battle.

Upon a denarius of the gens Scribonia we find on the obverse a female head with the inscription LIBO. BON. EVENT. ; reverse a puteal (or well-stone) in the form of an altar with the inscription PUTEAL above, SCRIBONIA in the exergue. This is a very interesting coin referring to the puteal in the Comitium built on the spot where the events of the story of King Tarquin and the augur occurred, and where in later days the knife and the whetstone were found buried. Here were oaths taken as an especially sacred place. In 1812 an altar was found at Veii in every respect corresponding with this representation, and it is likely that the *puteal Libonis* served as a model for imitation in other places.

In addition to those already described are a number of so-called family coins, among which are well-preserved specimens of the Cornelia, Fulvia, Hostilia, Maiana, Opeimia, Pomponia, Scribonia, Vibia, and other gentes, presenting interesting types. The gens Cornelia was a most noble family, both Patrician and Plebeian, and has left a number of devices upon the denarii which are attribu-

ted to it. The gens Fulvia, although "confessedly one of the most conspicuous of the Roman gentes, is only known by one denarius, except some colonial ones figured by Morrell" (Smyth, *Family Coins*, p. 85). It bears on the obverse the head of Pallas Nikephora with alated helmet and the word ROMA; on the reverse "Victoria alata holds out a chaplet in a biga galloping to the right. Under the horse is CN FOUL, and in the exergum M GAL Q MET. Although we do not hear of the Fulvii till L. Fulvius became Consul in B. C. 322, it is known that even they were of long standing in Tusculum. * * * Of the ladies of this gens two played a very conspicuous part; the first, a woman of rank, divulged the Catalinian conspiracy; the second married Mark Antony for her third husband, breathing nothing but war and domination. This is the fury who pierced the dead Cicero's tongue with a bodkin, uttering all sorts of opprobrious epithets all the while. (Smyth, *loc cit.*)

A denarius of the gens MAIANIA presents on the obverse "a winged and galeated head of Roma with the mark X; on the reverse a winged Victory in a rapid viga holding the reins firmly with her left hand, while her right is whipping the horses, which are unusually free from harness. Below is the inscription C MAIANIA; exergue ROMA. History makes no mention of this gens, and its rank is unknown." (Smyth, p. 127.)

The gens OPEIMIA presents "the galeated head of Pallas, bearing stern and manly features, wearing an ear-ring with a long pendant and a necklace; in front is the denarial stamp X, and at the back is a chaplet; on the reverse, L. OPEIMI; exergue Roma. Victoria alata in a galloping quadriga holds the reins with her left hand and a laurel crown in her right. This was probably struck by L. Opeimius, the aristocratic Prætor who suppressed the revolt of Tregellæ, B. C. 125. This is the man who, being Consul four years later, hunted C. Gracchus with personal animosity to his destruction, and being himself condemned for receiving Jugurtha's bribes, died hated and insulted, a poverty-stricken exile at Dyrrachium. * * * The Opeimii are first brought on the stage of history at the time of the Samnite wars, yet the components of the gens are but little known." (Smyth, 157.)

The denarii of the gens Pomponia occur frequently and are of many devices. Upon some are seen the figures of the Muses, Clio, Euterpe, Thalia, Melpomene, Terpsichore, Erato, Polyhymnia, Urania, and Calliope, with the symbols respectively indicative of their supposed avocations. Upon one denarius is found the representation of Hercules Musagetæ playing upon a lyre. "The temple of Hercules Musarum was built in the Flaminian circus by the Consul Fulvius, who having, when Imperator in Greece, recognized Hercules as Musagetes, consecrated to his tutelar protection the nine statutes of the Muses, which he had brought over from Aetolia, B. C. 189. The Pomponia, though a plebeian gens, were very proud, and toward the end of the Republic, followed the example

of the other Roman gentes by claiming high antiquity, pretending descent from Pompo, one of the sons of Numa." (Smyth, p. 184, *et seq.*)

The gens Vibia likewise affords many varieties of obverses and reverses. Among the former we find the laureated head of Apollo, the head of Pallas, an ivy-crowned head of Bacchus, a scenic mask of Pan, a laureated female head supposed to represent the Goddess Libertas, laureated head of Hercules, bearded head of Jove; on the reverses are galeated figures in quadriga, Ceres crowned with wheat marching across a field, Jupiter Axuris, Roma seated on a pile of bucklers, holding in her right hand a spear, in her left the parazonium, pressing with her left foot on a globe and in the act of being crowned by a flying Victory, two clasped right hands sustaining a winged caduceus (relating to D. Brutus, who being besieged by Mark Antony at Mutina, B. C. 45, was liberated by the Consuls Hirtius and Pansa), a panther with his forefeet raised on a decorated cylindrical altar on which are the Bacchi attributes, a bearded mask and a long thyrsus adorned with ribbons, Victoria alata placing a garland upon a trophy composed of spoils, and Ceres crowned with corn, holding a lighted torch, seated in a car drawn by two dragons. These dragons are portentous creations of the ancient imagination in all countries. The serpent worship was all but universal. It is alluded to in the earlier portions of the Bible, and it is known to have prevailed among the Chaldees, the Persians, and the Egyptians as emblematic of the Sun and Time and Eternity. From the Orientals it descended to the Greeks, and from them to the Romans, among whom it became a type of Victory, Prosperity, and Health. (Smyth, p. 255, *et seq.*) Ceres in her car, drawn by dragons, likewise occurs upon the coins of the gens Volteia.

After the decline of Roman liberty the Emperors coined gold and silver, but the bronze remained the prerogative of the Senate. Upon the reverse of the imperial denarii occurred many interesting types, such as Pax, Providentia, Pietas, Fecunditas, Æquitas, Concordia, Tranquillitas, Constantia, Pudicitia, Decursio, Adlocutio, Fides, Spes, Victoria, Fortuna, and a multitude of others. Upon the decease of an Emperor, it was the custom to deify him, and to issue coins commemorating the event; they usually bear on the reverse the word CONSECRATIO, and an eagle soaring to heaven, or a chariot drawn by four elephants, or a Phoenix, the head on the obverse being surrounded by rays. When it was a female who received this honor, as in the case of one of the imperial family, the reverse bore a peacock, or a chariot drawn by peacocks, or a carpentum drawn by mules. The servile adulation which had been their portion during life was not ended even in death.

The very earliest of the Roman coinage was of copper (or bronze), and was issued by Servius Tullius about the sixth century before Christ. The *As* was the primitive monetary unit of Rome, and although from time to time reduced in weight retained its legal

value always unchanged. The coinage of silver, the denarius, quinarius, and the sestertius began about 269 B. C.; gold was first minted about 206 B. C.

A coin has preserved to us the monetary implements of the ancients; a denarius of the gens Carisia bears on the reverse the pincers, hammer, anvil, and bonnet of Vulcan.

When the first Triumvirs placed their own effigies upon the coins, they gave a great shock to the ancient habits and superstitions of the Roman people by displacing the old traditional types of gods and goddesses. Pompey and Cæsar were the first to set the example, which was followed by their relatives and their successors in authority, although by some authors it is held that the head of Pompey was not placed upon coins until after his death, and that it was then done by his sons.

There is a handsomely executed Paduan fabrication of a first brass of the Emperor Otho, bearing his head on the obverse, and on the reverse the Emperor standing with his right hand extended over an altar clasping the hands of three soldiers who bear military ensigns; inscription, SECURITAS P. R. S. C. A Roman first brass of the Emperor Otho is something that has always been a desideratum; none are known to exist or to have ever existed. Bronzes from the Egyptian Mint are to be met with, and these alone must replace the Roman issue in collections unless the unexpected, which is always occurring, should some day bring to light a hoard of these coins. The usual explanation given for the absence of the first bronzes of this Emperor is based upon the power retained by the Senate of striking copper, while their rulers had usurped the privilege of coining gold and silver. The denarii of Otho are not of infrequent occurrence, notwithstanding the extremely short duration of his reign.

Among the imperial Roman series are many fine and rare coins, starting from Julius Cæsar and coming well down to the later days of the Byzantine Empire. They all bear the image of the Emperor on the obverse and the reverses in many instances, commemorate important events. Upon the coinage are found their wars and conquests and expeditions, imperial voyages to distant portions of the empire, valuable historical facts and epochs. They are not so remarkable for the art displayed upon their coinage, and maintain their chief interest from their historical associations, while their claims to be regarded as exhibiting a graceful execution are very slight when we compare them with the masterpieces of the Grecian artists. The arts never flourished in Rome as they did in Greece; they were never indigenous to the soil that bore a band of rugged heroes.

The coinage of the Roman nation, from its earliest inception down to the capture of Constantinople by the Turks, presents to us a lengthy and uninterrupted chain for two thousand years, preserving to us the portraits of the monarchs, their wives and families, relations and generals.

CASE 3.

Coins of the Sassanidæ, the rulers of the Second Persian Empire, from about 226 A. D. to 651 A. D., are curious and interesting. They are thin, flat silver coins, bearing on the obverse a bust of the monarch wearing a peculiar head-dress, on the reverse a fire altar stands between two figures dressed in the old Persian garb (representing respectively the genii of good and evil), and an inscription in Arian characters is at the side. These coins are of uncouth and barbarous design and workmanship, and represent a period of decadence in art before the Mohammedan conquest had prohibited the representation of the human figure as idolatrous.

The art of coinage, as carried into the East by Alexander the Great, remained in Bactria and India for many centuries, where money was long coined with inscriptions in the Greek languages, the coins of the Arsacidæ in Armenia, and of the Sassanidæ in Persia, bringing the mintage of Central Asia down to a comparatively recent period.

CASES 4, 5.

We now come to the coinage of Great Britain, as being a good connecting link between the Roman and the modern eras of coinage. A very heavy and uncouth gold British coin of remote antiquity, perhaps of a period even before the days of Cæsar, marks the beginning. Then in regular order come the rude coinages of the various early monarchs (too familiar to require description here), pennies, groats, etc., etc., broad gold pieces of James I and the Commonwealth of England; a very fine crown of Queen Elizabeth; gold "touch pieces," given by Kings Charles II and James II to those unfortunate beings whom, in conformity with the superstitions of the times, they "touched" to cure the King's evil; *gun money* of James II, being coined from cannon melted up by that monarch and passed at a fictitious value; a fine Gothic pattern crown of Queen Victoria, but never adopted for the national coinage; coins of Philip and Mary, bearing both their heads. These were current until a comparatively recent date, and were thus referred to in *Hudibras* :

" * * * * * fond and billing,
Like Philip and Mary upon a shilling."

There are also a number of coins of the English sovereigns struck for Scotland and Ireland, and various siege pieces of Charles I, who never, in all his extremities, resorted to the expedient of a debased coinage.

Scotland is represented by coins of John Baliol and Alexander III, and a fine dollar, bearing the name of Queen Mary and her husband, the ill-fated Darnley. Upon the reverse of this coin is a yew-tree, popularly supposed to be the one which grew in the court-yard of Darnley's residence at Cruikston, from which circumstances this coin is known as the "Cruikston dollar."

CASE 7.

France is represented from Henry IV, including a number of silver ecus of various monarchs. On those of Louis XIV, we can trace the progress of his years, his coins exhibiting him in various stages from youth to old age. Louis XV is shown as a very handsome young man. There are also coins of Louis XVI, Napoleon, Louis XVIII, Louis Philippe, Charles X, the Republic of 1848, Napoleon III, and the present Republic.

A full line of Spanish and Portuguese coins carries us from the sixteenth century to the present time, among which is a silver dollar of Philip II of Spain, on which among his titles appears that of King of England.

CASES 8, 9.

Germany, rich in silver mines, exhibits a number of fine crowns of different emperors, dukes, bishops, etc., etc.; and a coin of Vladislaus of Poland, a noble kingdom, for centuries the bulwark of Christendom against the Turk, in the end despoiled and devoured by the very monarchies which its valor had preserved. These pieces range from 1586 to 1689. There are also many silver pieces of the various countries, comprising the Netherlands, such as Gueldres, Zeeland, Campen, etc., etc.

Russia, among other specimens, exhibits its platinum coinage, which, after a short trial, was abandoned as an unsuccessful experiment, and which is very rare.

Scandinavia presents nothing remarkable, except the copper *dalers*, issued in the reign of Charles XII, when his insatiate thirst for glory had almost reduced his kingdom to beggary. To obtain the necessary revenues for carrying on his mad career he issued small copper pieces which were to be a legal tender for a dollar. The experiment failed, after working the usual amount of hardships, and its originator, Baron Goertz, paid with his life the penalty of its ill success.

CASES 9, 13.

The coinage of the Orient is largely represented, including a full set of the rare and curious "bullet money" from Siam, formed by bringing together the ends of oval pieces of silver, and on each piece is stamped a minute mark showing its value. Each "bullet" is perfectly symmetrical and its weight is very accurately and carefully proportioned to that of the other pieces. They are eight in number, and are named Pie, Sungpee, Fung, Salung, Song Salung, Tical (or Bat), Songbat, Sibat.

There are some curiously stamped coins from Cochin China, long and narrow in shape.

Japan presents a full set of gold, silver, and copper coinage, both ancient and modern, the liberal gift of Lieutenant Alan C. Paul, U. S. N., to the Numismatic and Antiquarian Society of Philadelphia, upon his return from the Orient.

There are coins of the great Orkhan, and a complete series of

thirty-three Ottoman monarchs, his successors, likewise specimens of the coinage of the Caliphs of Bagdad and of the Moorish rulers of Spain, very rare, but barbarous in art and uninteresting, save from historical association.¹

There are also some of the "chopped" money current in China, where the custom exists of mercantile houses placing their "chop" (or guarantee firm name) upon all the silver money that passes through their hands. The effect of this is very soon to render a coin utterly unrecognizable through the multiplicity of "chops" that it had received. Chinese coinage is also curious and antique.

CASE 14.

In America we find an uncirculated cent of 1793, a beautiful head with flowing hair, an object far more tasteful than the later designs with which the authorities of the United States Mint have favored us. The very rare silver piece coined by Louis XIV, for circulation in the Franco-American colonies, known as the *Gloriam regni*, exists here in fine condition, as also the Rosa Americana half-penny, coined for circulation in British North America, in the reign of King George I; Georgius Triumpho, Immunis Columbia, Bar Cent, Nova Constellatio, Talbot Allum and Lee (of New York) cent 1794, the Higley copper, coined in Connecticut in 1737, Nova Cæsarea, Vermont, Virginia, Nova Constellatio, Connecticut and Massachusetts coppers, Massachusetts schilling and three-pence of 1652 (of which former coin it is narrated that the daughter of the mint master was given her weight as a dowry, she standing in one scale while the money was poured into the other), the sixpence issued in 1783 by I. Chalmers, a jeweler, at Annapolis, a very fine Washington cent 1791, large eagle, a number of fine proof-sets and coins of the United States Mint, including the pattern dollar of 1836, the set of pattern cents of 1858, the pattern cents of 1850, 1854, and 1855, the set of pattern half-dollars of 1868.

Among the patterns is a *goloid metric* dollar, a composition the invention of William Wheeler Hubbell, Esq., which was proposed as being especially adapted for the coinage of the standard dollar. It contains gold, silver, and copper in fixed proportions, but presents the feeling and appearance of a very light silver coin. Also, a *Stella* set, being the invention of the same gentleman. Of these patterns there were not more than twenty-five struck, and it is of the greatest rarity.

There is the general and customary assortment of the coins usually incident to the American series, a series which contains very little either of beauty or of interest, so that in the present instance, where our aim was mainly to exhibit *Art*, no attempt has been made toward a display of mere numismatic rarities.

¹ At present these are not on exhibition, owing to mechanical difficulties attending their display.

The object in hand is to show Art in its origin, growth, and progress ; Art as a hand-maid for the illustration of mythology and the elucidation of history ; Art as an interpreter of the classics, where many obscure passages find upon coins their only true solution. Treatise after treatise has been written to show the advantage to be derived from the study of ancient coinages. Agostino, Goltz, Strada, Eckhel, Spanheim, and a myriad of others have contributed their stores of knowledge to the general fund.

Coins throw light upon the history of nations, their forms of government, the political condition of their citizens ; they indicate the classification of their inhabitants ; they serve to fix the successions of monarchs, the events of their reigns, and the dates of eras. They have preserved to us the names of a multitude of civic magistrates and rulers, their offices and functions. They have presented to us the images of sovereigns and great personages of history, the heroes of antiquity, poets, painters, philosophers, and sages, gods, goddesses, demigods, legislators, and women of fame. They have added largely to our geographical knowledge of the ancient world, exhibiting rivers and fountains, seas and mountains, rocks, and other characteristics of places. Cities have borne different names at various times, and coins alone have authenticated their proper attribution. Coins bear frequently types which relate to the religions of the ancient world, both as representing persons, ideas, creeds, shrines, temples, altars, and places of worship, sacrifices, utensils, and sacred objects. The holy stone to whose worship Elagabalus was consecrated, Diana of the Ephesians, and many similar devices exist on coins.

Many customs and ornaments and forms of dress are also thus preserved to our times.

Architecture has also been enriched by the edifices, bridges, arches, columns, monuments, and similar objects which historians have not fully described, as being too familiar a subject, or else have totally passed over, not being then in existence.

When we consider the vast extent of the riches and possessions of so many of the potentates and states of antiquity, the enormous quantity of ancient coins which have survived to our times should not surprise us. The antique earth was a world of commerce, as is our modern globe of to-day ; for the requirements of a commerce, which we know was an extensive one, large quantities of circulating medium were necessary, and the great mines of the archaic days furnished immense supplies of the precious metals. The Syracusans, the Athenians, Philip II of Macedon, Alexander the Great, the Ptolemies of Egypt, and lastly the Romans, all issued great quantities of coined money during long centuries ; they were all wealthy and prosperous. In the Royal collection at Paris, probably the finest in the world, there are representative coins of sixty-five thousand different nations, cities and princes ; the whole number of coinage issued, it is supposed, would amount to about one hundred thousand.

The interest which attaches to the earliest day-dawn of civilization upon this planet, to human life in its first development in the far distant past, is heightened by the perusal of these tokens which serve as a connecting link between those who live this day and have their being and those who lived three thousand years ago, who saw these works of art as they issued forth fresh from the coiner's hand; who ate, who drank, who slept, who died while these coins were still in their first infancy. Strange customs and curious ethnological facts, traits, and coincidences have been displayed or developed upon coins, the records of the earth verified and brought to light. The world's epitome is here; history, geography, philosophy, religion, all bear their part.

We cannot more appropriately conclude this sketch than with the words of the brilliant writer, Gautier:

*Tout passe. L'art robuste
Seul a l'éternité.
Le buste
Survit à la cité.*

*Et la médaille austère,
Que trouve un laboureur
Sous terre,
Révèle un empereur.*

All passeth. Art robust
Alone for aye doth bide.
The bust
Survives the city's pride.

And oft the coin that's found
By a rude laborer's plow,
'Neath ground,
Reveals an emperor's brow.

NOTES ON THE COLLECTION OF CHINESE COINS BELONGING TO THE MUSEUM.

BY STEWART CULIN.

The history of China is illustrated upon its coinage. By means of it not only the rise and fall of successive emperors and dynasties may be traced, but the gradual development of a people from a condition of barbarism into a compact and enduring civilization.

Barter preceded coinage in China as everywhere else, and various metals, cloths, precious stones, grains, and shells were used for that purpose. In time, implements of bronze, more convenient to pass from hand to hand, were preferred to other materials. Small spades, adzes, and knives, improper for the work their shape was intended, and later on flat rings of bronze multiplied and entered into the currency.¹

These pieces, which passed current by weight, do not appear to have been turned into coinage by a regular stamp until the time of King Wang (544-519 B. C.) of the Cheu Dynasty, who issued in 523 B. C. the bullion, then coinage, in various sizes and weights, regularly proportioned.

Coins were not largely multiplied until the third and fourth centuries before our era, during which the shapes of the implements and rings were retained, and the pieces usually bear rude inscriptions indicating the name of city of issue and their intended weight value.² Many of these irregular coins, the commonest forms of which are known as "knife" and "cloth coins," the latter from their resemblance to a dress or piece of cloth, are attributed by the Chinese themselves to an almost fabulous antiquity.

The necessity for a more convenient currency at last caused the substitution of a uniform circular coinage; the flat disc with a square hole in the middle became the national money of China, and has remained such until the present day. In the year 465 A. D. the reigning title of the Emperor appeared upon the coins,³ and since this time there has been little change. They almost uniformly bear on the obverse the inscription *t'ung p'adu*, "current money," at present placed on the right and left of the hole, and on the other sides the title in use as the "national designation" at the time of issue. The personal name of the Emperor is considered sacred and its use avoided,⁴ consequently at the com-

¹ See Professor Terrien de La Couperie in the *Numismatic Chronicle*, third series, Vol. iii, p. 309. London, 1883.

² *Ibid.*

³ Lieutenant F. E. Forbes, R. N. *Five Years in China*. London, 1847, p. 60.

⁴ S. Wells Williams, LL. D. *Syllabic Dictionary of the Chinese Language*. Shanghai, 1874, p. 266.

mencement of each reign, a fanciful title, usually of a felicitous nature, is selected, which is inscribed upon the coins and used to designate the Emperor in the language of the people. Some Emperors have changed this title many times, while others have reigned uninterruptedly under the one first adopted.¹

The reverses of the coins are either blank or contain inscriptions referring to the place and circumstances of issue or numerals of value.

Silver coins were struck during various reigns, but at present they are not found in circulation, the only coins issued by the government being the base pieces already described, which are known as "tsien," from a weight to which they were once made equivalent.² The tsien, called "cash" by the English, and "sapeque" by the French, are strung for convenience upon withes of grass or split bamboo, one hundred upon a string. Coins bearing a nominal value of five and ten up to one hundred tsien, were frequently issued.

The purchasing power of the tsien and their value in relation to silver has fluctuated greatly at different times. Nominally the tsien represents one-thousandth of a *leang*³ or Chinese ounce of silver, but this value has not been maintained. "The market relation between cash and foreign dollars varies from twelve hundred to eighteen hundred cash to the dollar, the variance being influenced by the local supply and demand of particular coins at the treaty ports."⁴

These tsien are all cast in clay molds, and those now coined consist of seven parts of copper and three of lead, and should weigh 1 *tsien*, 1 *fun*; but their composition and weight has varied greatly during different periods, iron having been used and alloys of copper, tin, zinc, and lead in different proportions.⁵

There are two great mints at Peking, in the Board of Revenue and Board of Works, whence the coin is circulated to various provincial mints for imitation. Most of the provinces have a mint established at the provincial capital.⁶

When it is necessary to coin money the clay molds are constructed some months in advance and are thoroughly dried. The obverse and reverse of the money to be cast is then cut in the molds, each mold containing twenty-seven coins, thirteen on each side and one at the top, the molds being broken after each

¹ H. F. W. Holt, R. N. *The Numismatic Chronicle*. London, 1866, new series, Vol. vi, p. 70.

² S. Wells Williams, LL. D. *The Middle Kingdom*. New York, 1883, Vol. ii, p. 83.

³ According to a Chinese scale for weighing money in possession of the writer, the *leang* is equivalent to 580 grains Troy, and its decimals, the *tsien*, *fun*, and *li*, to 58, 5.8, and .58 grains respectively.

⁴ Alexander Del Mar. *Monograph on the History of Money in China*. San Francisco, 1881, p. 21.

⁵ H. F. W. Holt, R. N. *The Numismatic Chronicle*. London, 1866, new series, Vol. vi, p. 88.

⁶ *Ibid.*

operation. The pieces are then strung on slips of bamboo, and the workmen then takes this in his hand and rolls the coins backwards and forwards on a flat stone until the edges are smoothed round.¹

The mode of coinage is identical with that in vogue for the last two thousand years, no advance having been made for centuries; in fact, the present coinage is inferior to that of two hundred years ago. The issue of money is a government monopoly, but there is an enormous amount of spurious and debased money in circulation.

The "knife" and "cloth" coins are no longer in circulation, and are seldom seen except in numismatic collections or treasured as charms. The Chinese are an extremely superstitious people and much given to wearing amulets to ward off evil influences or invite good fortune. In common with Western nations, their most popular form of charm is a piece of money, and they believe the older the coin the greater its virtues.² Copies of the old currency are made for this purpose, and pieces resembling coins, inscribed with happy phrases, and symbols which are believed to be efficacious against evil influences, are in common use.³

The collection of Chinese coins in the Pennsylvania Museum and School of Industrial Art numbers eight hundred and seventeen specimens arranged upon thirty trays.

Tray I contains twenty of the pieces cast for amulets. Several of them, Nos. 2, 3, 4, 6, bear on one side representations of the twelve animals used as horary characters; No. 13 has on the obverse the *pa-kwa* or eight diagrams used in divination. Each is designed for some special purpose: No. 1 is hung upon the curtains of the bed, others are worn by children, and all of them are supposed to keep away the demons which the followers of Taou, one of the three great religious bodies in China, believe to be everywhere present. To the priests of Taou, who derive large sums of money from their sale, many, if not all, of these charms may be attributed.

No. 6 bears on the reverse a representation of Chang Teen-sze, the principal of the Taou sect, who resides in the province of Kiang-si, and who, like the Grand Lama of Thibet, is supposed to be immortal. He is the ruler of the world of spirits, and appoints and removes the deities of various districts, just as the Emperor does his officers.⁴

Tray II contains a series of pieces known as "horse coins," from the design of a horse which appears upon them. Their era, and whether they are coins or amulets, is unknown to the writer.

Tray III contains nineteen specimens of the "cloth coins," attributed by the Chinese to the earliest periods of their history.

¹ Holt (N. C. p. 89).

² N. B. Dennys, *The Folk Lore of China*. London, 1876, p. 55.

³ Rev. Justus Doolittle. *The Social Life of the Chinese*. N. Y., 1867. Vol. ii, p. 145.

⁴ W. H. Medhurst. *China: its State and Prospects*. Boston, 1839, p. 167.

To No. 15 they give a date of 2852 B. C., and assign the others to various periods down to the close of the Cheu Dynasty (255 B. C.).

In Tray IV are two remarkable wedge-shaped pieces (1, 2) and four knife or sword coins (3-6) of extraordinary size, No. 5 measuring over seven inches in length. Nos. 11-14 are specimens of the earliest circular coinage.

In Tray V these early coins are continued in Nos. 1-6. Nos. 7-13 are known as *pwan leang*, and with them commences our more accurate knowledge of Chinese coinage.¹ Nos. 7, 8, were issued by Che Hwang-te, first ruler of the short-lived Tsin Dynasty (255-206 B. C.). The coins of the Han Dynasties, which lasted from 206 B. C. to 264 A. D., succeed (Tray V, 14-25; Tray VI, 1-10). During these dynasties the cloth and knife pieces of the earlier age were revived, it is said, by King Wang, an usurper, who seized the throne (A. D. 9-25). Noticeable among them is the knife coin, No. 23, in Tray V, which has two characters above and below the hole inlaid with gold, and is said to present the only instance of the use of this metal in Chinese currency.

No. 11, of Tray VI, was issued by the State of Woo, one of the celebrated "Three States" which succeeded the Han Dynasty, and Nos. 12 to 22 under the Sung, Ts'i, Liang, and Ch'an Dynasties, which rapidly followed each other between 420 and 589 A. D.

Nos. 23-30, Tray VI, are the coins of the independent States of Wei and Chou.

In Tray VII, Nos. 1-19, are found the coins of the T'ang Dynasty.

Nos. 23-30 were issued during the disturbed period which preceded the establishment of the Sung.

With No. 1, of Tray VIII, and continuing to No. 3, of Tray XVI, are found the coinage of the Sung and Southern Sung Dynasties. During their continuance, A. D. 960-1280, the empire is said to have reached its greatest prosperity, and the fine collection before us, embracing the coinage of sixteen of the eighteen Emperors, fittingly represents this illustrious period.

The coins of the Yuen Dynasty established by the Mongols after their conquest of China under Kublai Khan follow in Tray XVII, Nos. 1-21.

These pieces were issued by the third, fourth, and eleventh Emperors, Kublai, the founder of the Dynasty, not being represented.

Upon the overthrow of the Mongols the Chinese established the Ming or "Bright" Dynasty, A. D. 1368, the coins of which commence with No. 22 of Tray XVII, and continue to No. 21 of Tray XX.

China was again conquered, this time by the Manchu Tartars, about the middle of the seventeenth century, and the present Ts'ing or "Peace" Dynasty established upon the throne of the Mings in

¹ Holt (N. C.).

1644. Nos. 22-30 in Tray XX, and Nos. 1-7 in Tray XXI, were issued by Ming claimants to the throne after the Tartar conquest, and Nos. 8-30 by rebel leaders of the same period.

The coinage of the present Dynasty deserves a more than passing notice in this hasty survey.¹

T'ae tsoò, the founder of the now reigning Manchu line, issued No 1, Tray XXV, about the time of his installation as Prince of that nation in 1616. It bears at the top and bottom the inscription, *T'een Ming*, "Heavenly Mandate," that being the national designation adopted for his reign, and, on the right and left sides, *tung padu*, "current coin." Nos. 2, 3 bear the same legend written in the Manchu character.

It was not until 1643 that Shé tsoò, the third of his line, ascended the throne of China, taking the name of *Shùn che*, "Compliant Government." Nos. 3-30, Tray XXV, and Nos. 1-7, Tray XXVI, represent his reign. They bear on the obverse characters in Manchu and Chinese, indicating the mints of issue.

Shing-tsoò succeeded Shé tsoò in 1661, taking *K'ang he*, "Peaceful Lustre" for his title. Nos. 8-30, Tray XXVI, and Nos. 1, 2, Tray XXVIII, were coined by him.

Shé Ts'ung succeeded in 1722 under the name of *Yung Ching*, "Agreeable Rectitude." Tray XXVII, Nos. 3-12.

In 1735 Kaou ts'ung ascended the throne, taking the name of *Keen Lung*, "Celestial Support." This Emperor, who reigned like his predecessor, Shé ts'ung, for sixty years, may be justly regarded as the second greatest, if not the greatest, sovereign China ever produced. The coins of his reign, represented by Nos. 13-30, Tray XXVII, and 1-3, Tray XXVIII, are superior in design and execution to those of the other issues of this Dynasty. No. 2, Tray XXVII, was coined for the use of the Mohammedan tribes of Soun-garia, newly subjected by this Emperor, in 1759, and bears on the reverse *Yerkiyang* (Yarkand), in Manchu and Arabic.

Jin tsung succeeded *Keen Lung* in 1796, taking the name of *K'ea K'ing* "Increasing Felicity," and issued the coins Nos. 4-24 in Tray XXVIII.

Seuen tsung ascended the throne in 1820, on the death of *K'ea K'ing*, under the title *Taou Kwang*, "Lustre of Reason." Tray XXVIII, Nos. 25-30; Tray XXIX, Nos. 1-12.

He was succeeded in 1850 by *H'een fung*, "Prevailing Abundance." Nos. 13-27, Tray XXIX, and Nos. 1-14, Tray XXX, were issued by him. The T'ae ping insurrection, which nearly overthrew the government during this reign, was a source of great financial embarrassment, and the pieces Nos. 1-14 in Tray XXX, having a nominal value much beyond their intrinsic worth, were coined to meet the emergency. No. 4 had a nominal value of one hundred tsien; No. 3, fifty tsien; Nos. 6, 7, twenty tsien, and

¹ Dr. A. Wylie. *Journal of the Shanghai Literary and Scientific Society*, No. 1, June, 1858, p. 44.

Nos. 8-13, ten tsien. They were taken very reluctantly by the people, and at present have nearly passed out of circulation.

No. 32, Tray XXIX, was issued by the Triad rebels, who took possession of the city of Shanghai in 1853.

Tung Che, the last of the Emperors represented, ascended the throne in 1860. He issued the pieces Nos. 28-30, Tray XXIX, and Nos. 15, 16, Tray XXX, the last two being of the denomination of ten cash.

The form and character of the Chinese coinage were adopted by many of the neighboring countries at an early period. In A. D. 675 Japan issued a copper coinage, probably cash, similar to the Chinese,¹ and has retained this form of currency to the present day. Nos. 1-6, Tray XX, are Corean, Nos. 7-10 Japanese, Nos. 11-19 Loo Choo, and commencing with No. 21, Tray XXIII, are to be found the coinage of Cochin China from the early part of the fifteenth century.

The ease with which the cash may be cast has led to the issue not only of an enormous volume of counterfeits, but of irregular pieces, usually weighing less than the legal standard and bearing inscriptions not found upon the legitimate issues. A collection of these pieces, coined by private individuals, is embraced by Nos. 22-30, Tray XXIII, and Nos. 1-36, Tray XXIV.

In concluding these brief, imperfect notes, a word might be said upon the value of these memorials, the earliest authentic records of a nation whose history extends back almost to the dawn of civilization.

We find upon them names of Emperors and Kings who ruled a people skilled in the arts and sciences while the Western World had scarcely emerged from a condition of barbarism.

We discover in the rude knives which served as a medium of exchange among the primitive people the origin of a monetary system which has lasted until the present day.

We may trace in the varying weights and composition of these coins indications of the periods of famine and internal commotion, when the government sought to relieve its needs by debasing its coinage, and again of wealth and prosperity in superior weight and excellence of workmanship. Confirming record and tradition, they furnish clues to the development and civilization of a mighty nation, revealing data valuable both to the historian and the student of mankind.

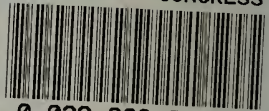
¹ From information kindly furnished the writer by Mr. Naito Ruijro, Secretary of the Japanese Legation, Washington.

CHRONOLOGICAL LIST OF CHINESE DYNASTIES.¹

	Began.	Ended.	Number of Sovereigns.
1. Hia.....	B. C. 2205	1766	17
2. Shang	1766	1122	28
3. Cheu.....	1122	255	34
4. Ts'in	255	206	2
5. Han.....	206	A. D. 25	14
6. Tung Han.....	A. D. 25	221	12
7. Heu Han	221	264	12
8. Tsin.....	265	322	4
9. Tung Tsin.....	323	419	11
10. Sung.....	420	478	8
11. Ts'i.....	479	502	5
12. Liang.....	502	556	4
13. Ch'án.....	557	589	5
14. Sui	589	619	3
15. T'ang.....	620	907	20
16. Heu Liang.....	907	923	2
17. Heu T'ang.....	923	936	4
18. Heu Tsin.....	936	946	2
19. Heu Han.....	947	951	2
20. Heu Cheu.....	951	960	3
21. Sung.....	960	1127	9
22. Southern Sung.	1127	1280	9
23. Yuen.....	1280	1368	9
24. Ming.....	1368	1644	16
25. Ts'ing.....	1644	8 to 1885.

¹S. Wells Williams, LL.D. *A Syllabic Dictionary of the Chinese Language.* Shanghai, 1874, p. 33.

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